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Modified Flotation Device Support Pattern at Severodvinsk Shipyard 402, USSR (S)

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WNINTEL

Z-12112/83
IAR-0077/83
NOVEMBER 1983
Copy 46

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MODIFIED FLOTATION DEVICE SUPPORT PATTERN AT SEVERODVINSK SHIPYARD 402, USSR (S)

1. Launch preparations have been underway on launch rail C at Severodvinsk Shipyard 402 USSR, since The arrangement of flotation device supports (FDSs) on launch rail C at construction hall 1 indicates that a modified D-III nuclear-powered ballistic missile submarine (SSBN) or a D-III follow-on will be launched in the near future. (S/WN) 25X1

2. Flotation devices are used to float submarines off the transfer dollies to the fitting-out quay via the deep-water portion of the launch basin (Figure 1). A floating crane is used to place the flotation devices on pads mounted on the submerged, sawhorse-shaped FDSs after a submarine is rolled out of the construction hall (Figure 2). Each flotation device rests on two FDSs. Prior to rollout, the FDSs are arranged in a specific pattern that has been different for each class of submarine. The FDS pattern observed on launch rail C on was similar to the pattern used for the launches of D-III SSBN units 11 through 14, when 12 FDSs were used on each side of the launch rail. However, four FDSs have been added, for a total of 14 on each side of the launch rail (Figure 3); this FDS pattern will support 14 flotation devices. The additional FDSs have been positioned forward of those in the standard D-III SSBN pattern and will be used to support one additional flotation device on each side of the bow. Two sizes of flotation devices, large and small, are used at Severodvinsk. The large flotation devices are approximately 10 meters long, 6 meters wide, and 7 meters high, and the small devices are approximately 10 meters long, 3 meters wide, and 7 meters high. Analysis of imagery acquired of previous launches suggests that a combination of ten large and four small flotation devices will be used; however, a combination of 12 large and two small devices is also possible. Either of the above combinations will provide the greatest total lifting capacity yet used for any submarine rolled out of construction hall 1. The total lifting capacity of the flotation devices has increased with each new class submarine constructed in construction hall 1 (Figure 4 and Table 1). (S/WN) 25X1

3. The addition of two flotation devices to the standard D-III configuration suggests that a heavier D-III-type submarine (unit 15) will be rolled out of the hall. The D-III SSBNs are equipped with the SS-N-18 submarine-launched ballistic missile (SLBM). A follow-on to the SS-N-18 SLBM, the SS-NX-23 (formerly the NE-05), is presently being tested at Nenoksa Naval Missile Test Center and is probably heavier than the SS-N-18. The additional flotation devices at the bow could be necessary to offset the additional ballast weight required on a submarine equipped with the SS-NX-23. (S/WN) 25X1

4. The modification of the FDS pattern could also indicate that unit 15 is a longer submarine. The additional FDSs have been positioned approximately 10 meters closer to the door of the construction hall than the FDSs in the standard D-III FDS pattern, and the standard portion of this FDS pattern is approximately 8 meters farther from the door than the pattern used for D-III units 11 through 14 (Figure 5). An upgraded torpedo tube-launched weapons system or an improved sonar on this submarine may require a longer bow area. (S/WN)

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Table 1.
Flotation Devices and FDSs for Classes of SSBNs Constructed in Construction Hall 1 at Severodvinsk Shipyard 402, USSR

SSBN Class	Construction Period	No of FDSs Used	No of Flotation Devices Used	Equivalent To
Y-I	Late 1966—Aug 1972	24	4 large and 8 small	8 large flotation devices
D-I	Jan 1972—Aug 1974	28	4 large and 10 small	9 large flotation devices
D-II	Late 1974—Jul 1975	32	4 large and 12 small	10 large flotation devices
D-III units 1—10	Late 1975—Apr 1979	32	6 large and 10 small	11 large flotation devices
D-III units 11—14	Late 1979—Late 1981	24	10 large and 2 small	11 large flotation devices
Mod D-III (unit 15)	Ucon	28	10 large and 4 small (prob)	12 large flotation devices (prob)

This table in its entirety is classified SECRET/WNINTEL

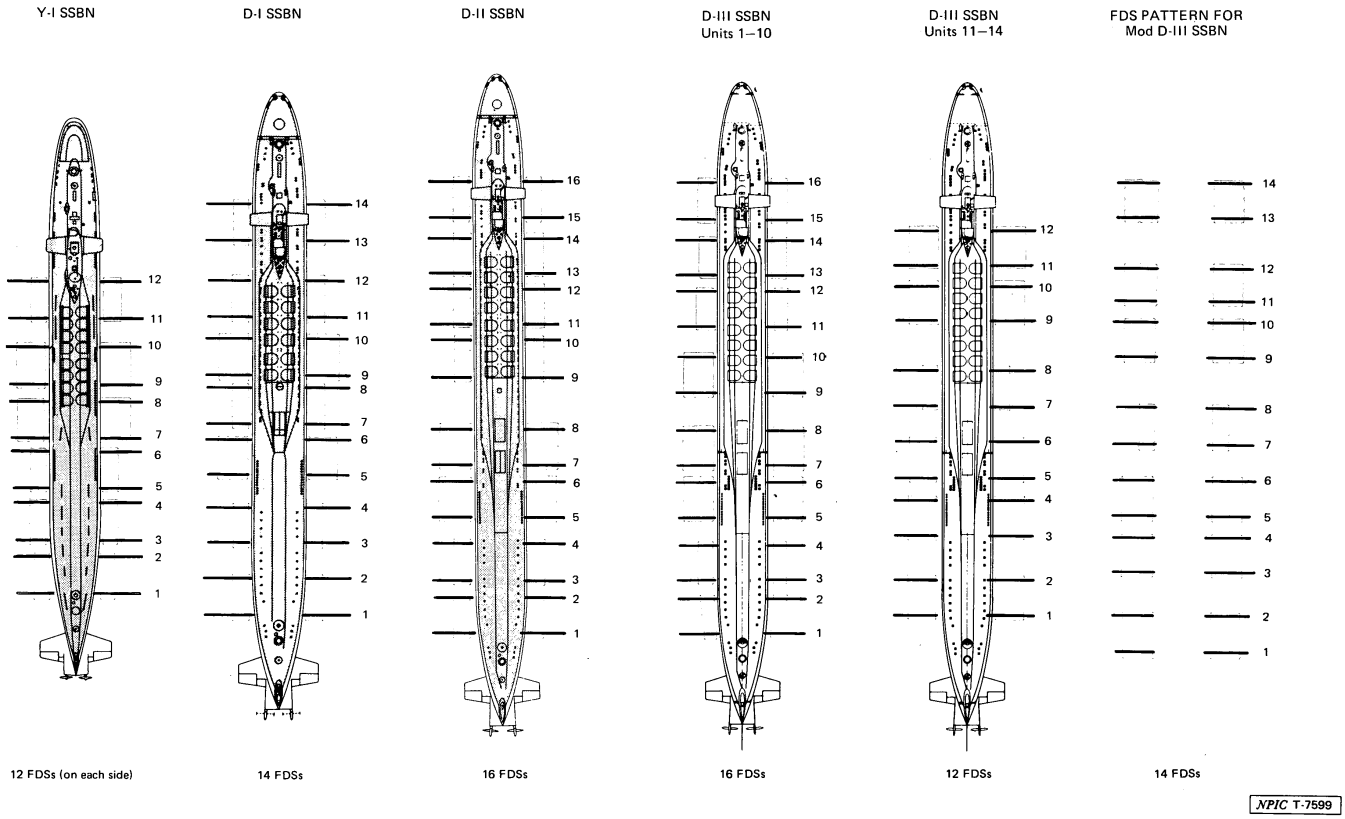

FIGURE 4. FLOTATION DEVICES AND FDSs USED FOR Y-I THROUGH D-III SSBNs

REFERENCES

IMAGERY

All applicable satellite imagery acquired from September 1966 through [redacted] was used in the preparation of this report. (S/WN) 25X1

Comments and queries regarding this report are welcome. They may be directed to [redacted] Soviet Strategic Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1 25X1 25X1

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